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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,707	02/15/2001	Angelo Bastioli	13929/TBA	3139

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EXAMINER

CHANG, VICTOR S

ART UNIT PAPER NUMBER

1771

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/784,707

Applicant(s)

BASTIOLI ET AL.

Examiner

Victor S. Chang

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/23/2005, 5/9/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4,7,8,10-32,39,40 and 46-50 is/are pending in the application.
- 4a) Of the above claim(s) 46 and 50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,7,8,10-32,39,40 and 47-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Introduction***

1. Applicants' amendments and remarks filed on 12/23/2005 and 5/9/2006 have been entered. Claims 1-3 have been amended on 5/9/2006; claim 1 has previously been amended on 12/23/2005. Claims 47-50 are added on 5/9/2006; claim 46 is added on 12/23/2005. Claims 1-4, 7, 8, 10-32, 39, 40 and 46-50 are active.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Election/Restrictions***

3. Applicant's election of species "potato starch" in the reply filed on 5/9/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Accordingly, claims 46 and 50 are withdrawn, because only non-elected species maize is recited.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claims 1-4, 7, 8, 10-32, 39, 40 and 47-49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the cell distribution has been amended to recite “at least 80% of the cells have a size range from 20 to 400  $\mu\text{m}$ ”. Applicants stated that support is provided by Example 1, wherein the cell dimension is between 40 and 170  $\mu\text{m}$  whereby 100% of the cells have a dimension from 40 to 400  $\mu\text{m}$  as well as by Example 10 wherein the cell dimension is between 35 and 188  $\mu\text{m}$ . However, the lower end point of the range in claim 1 is incommensurate with the lower end point of either examples, i.e., the support is insufficient. In the absence of any other express or inherent support, the amendment appears to be new matter.

Similarly, the amendment to the cell distribution to claims 2 and 3 are new matter. In particular, since Example 10 shows a foam density which is incommensurate with claim 3, it cannot be a support for recited cell distribution either.

Finally, Applicants stated that the support for the amylase content of 28 wt%, 26 wt% and 20 wt% in new claims 47-49 can be found in “Starch Chemistry and technology” is improper, and deemed to be new matter as well, because the reference has not previously been incorporated in the specification, and therefore they are not supported by the original disclosure.

***Rejections Based on Prior Art***

6. Claims 1-4, 7, 8, 10-32, 39, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altieri (US 5153037), generally as set forth in section 4 of Office action dated 6/30/2005, together with the following response to argument.

Altieri's invention is directed to a biodegradable shaped product comprising a close-cell expanded modified flour product. Altieri discloses that the cell size is typically about 100 to 600 microns and the bulk density of the product is from about 0.1 to 5 lb/ft<sup>3</sup> (i.e., 1.6 to 80.3 kg/m<sup>3</sup>) (col. 7, lines 21-29). Altieri teaches that Starches from different sources, e.g., potato, corn, tapioca, and rice, etc., and unmodified or modified, may be used (col. 4, lines 4-15; lines 38-40). Altieri teaches that "modified" means that the starch can be derivatized or modified by typical processes known in the art, e.g., esterification, etherification, oxidation, acid hydrolysis, cross-linking and enzyme conversion (col. 4, lines 47-51). The modification renders the flour inherently a destructured or complexed starch. Altieri teaches that density as well as resiliency and flexibility can be improved by incorporation of synthetics such as polyvinyl alcohol, polyvinyl acetate, polyurethane, polystyrene, poly(ethylene vinyl acetate) and polyvinylpyrrolidone (col. 5, lines 28-32). The modified and unmodified starch are inherently biodegradable polymers of natural origin. Altieri is silent about the cell size distribution and the intrinsic viscosity of the foamed product in DMSO. However, since Altieri teaches the same subject matter of the same structure and composition, and for the same use as the instant invention, a suitable cell size distribution and the intrinsic viscosity are considered to be either anticipated, or obviously provided by practicing the invention of prior art.

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Applicants' repeated argument that the claims require that the structured or complexed starch is a natural starch derived from a member selected from the group consisting of potato, wheat, maize and tapioca starch, but Altieri does not teach these starches, and actually teaches away from use of these starches by stressing that the starting starch material must be a high amylose starch containing at least 45% by weight of amylase (Remarks filed 12/23/2005, pages 11-13) ignores the fact that Altieri does teach starches from potato, etc., as set forth above. Applicants are again reminded that while Altieri teaches a high amylose starch, the amylose content is not recited in any of the claims 1-4, 7, 8, 10-32, 39, 40, and fail to preclude the Altieri reference, as pointed out repeatedly in prior Office actions mailed 6/30/2005 (page 3) and 7/26/2004 (page 3).

Applicants' argument directed to "maize" at pages 12-13 has not been considered, because species "maize" is non-elected, and withdrawn from further consideration.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

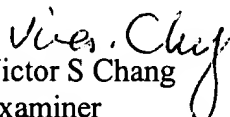
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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Victor S Chang  
Examiner  
Art Unit 1771

7/6/2006

  
TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
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